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LOBLOLLY PINE

PLANTED LOBLOLLY PINE 8 YEARS OLD

MARYLAND STATE BOARD OF FORESTRY
BALTIMORE, MARYLAND.

LOBLOLLY PINE.

(Pinus taeda)

Loblolly pine is the most important timber tree of the Eastern Shore, and in the extreme lower portions of Southern Maryland. It is associated with spruce pine, pitch pine, and less frequently, shortleaf pine in this region, but is easily distinguished from all three by the tall, straight, clean stem and the luxuriant clumps of needles 6 to 9 inches long which make a very heavy crowned tree.

Range.

Kent County, Maryland, on the Eastern Shore, marks the northern limit of the commercial range of this pine. A 20-acre tract, almost pure loblolly, near Rock Hall, is, so far as is known, the northernmost outpost on a commercial scale. Southward, it becomes increasingly abundant, until in Wicomico and Worcester Counties it constitutes 50% of existing timber outside of the swamps.

In Southern Maryland it is found naturally only in the southern portions of Calvert, Charles and St. Mary's Counties; the higher elevations of the Western Shore seem to prevent its distribution as far north as on the lower levels that are found on the Eastern Shore.

A very successful plantation of loblolly pine near Bowie, in Prince George's County seems to indicate that loblolly pine can be planted throughout the entire coastal plain, or a potential planting area of nearly half the State. Although it has never been tried it is probable that loblolly pine would grow on some of the poorly drained soils of the Piedmont, as for instance, in Howard and Baltimore County, but here competition would be had from the white pine which is more naturally suited to such conditions. It seems advisable, therefore, to confine planting of this species strictly to the Coastal Plain.

Characteristics.

The loblolly pine is an extremely rapid growing tree, in that respect probably equalling any commercial species on the Atlantic Coast. It is a tree that requires a considerable amount of light. When growing close together the side branches on the tree trunk quickly die and fall off giving with advancing age the tall, clean appearance so characteristic of the species, and in marked contrast, for instance, with its chief associate, spruce pine. The needles are 6 to 9 inches long—longer than any other pine in Maryland—and are usually borne three in a cluster.

The bark on young fast growing trees is very dark and furrowed, becoming with age broken into flat irregular plates of a reddish brown color. It is extremely thick, even on averaged sized trees. A tree 20 inches in diameter will often have bark two inches thick.

On trees grown in the open, cones may appear as early as the 12th or 15th year, while in crowded stands, very few cones will be found before the trees are 25 years old. The cones are borne usually in whorls of 2 to 5 on the lateral branches, and by the fall of the first year are ¾ inches long. When fully mature at the end of the second year they are 3 to 5 inches long. They open up from October to November, and allow the black seeds with their inch-long wings, to escape.

On the better soils of the Eastern Shore, loblolly pine will average 2 feet per year in height for the first 50 years of its life, and ¼ inch in diameter at the breast-high point (4½ feet from the ground).

Soil And Moisture Requirements.

As can be judged by its distribution in Maryland, the loblolly pine is distinctly a moisture-loving tree. The sandy soils of the Eastern Shore, where the water table is close to the surface, are especially suited. The poorly drained clay loams so frequent in Somerset County give another series of sites where the loblolly does particularly well. On the driest of the sandy soils the loblolly is superceded by the spruce pine. In the year-round swamp, while the loblolly will grow there it is only found as scattered specimens. These statements, of course, refer to natural conditions.

Enemies.

One of the great advantages of this tree, is its practical immunity to disease and insect attack. Once in a while a venturesome swarm of bark beetles will attack and kill a healthy specimen of loblolly pine. A 20-inch tree thus killed has been noted, but these are only isolated specimens.

The only real enemy the loblolly pine has is fire. Even here the thick bark makes it more resistant than any one of its associates. But no tree is proof against a driving fire that sears the crown as well as consuming the forest floor cover. Since Maryland statistics show that 75% of all fires are caused by carelessness, more care in this regard is all that is required to insure the protection of the pine.

Uses Of The Wood.

Loblolly pine has a wider range of uses than any other tree growing on the Coastal Plain of Maryland. Some of the more important uses are: piling, mine props and mine planks, framing, box shooks, berry and cantaloupe crates, barrel staves and headings, pulp wood and fuel wood.

The wood is extremely coarse grained with wide growth rings—often not more than 2 or 4 to the inch. It is neither very strong nor durable, but in the uses listed above, these qualities are not of first importance.

Suitability For Planting.

This species lends itself particularly well to forest planting as is demonstrated by successful plantations already established, both on the Eastern and Western Shore. In these plantations the growth has averaged practically 2½ feet a year in height, and ½ inch in diameter. It has been further demonstrated that it is not necessary to use nursery grown stock in order to secure successful plantations. Wild stock lifted along the edge of fields, provided it is not more than 18 inches high, can be successfully used for this purpose. The usual spacing is 6 by 6 feet, which requires 1210 trees to the acre. With such a spacing, even in sandy soils, the crown will begin to close, and the side branches to die, by the eighth to the tenth year.

Within the Coastal Plain this species should be used for forest planting on all sites except the year-round swamps, and the dry clay soils of the higher elevations of Prince George and Anne Arundel Counties. The swamps are essentially adapted to hardwoods such as gum. On the drier elevations shortleaf pine could be used to advantage.

Yield And Return.

The yield to be expected from this tree, given in the table below, is based on actual measurements taken in stands that seemed to be regular and even aged. If it will do that in natural stands, one can count on equally good or better returns in plantations, or natural stands that are under management. In order to cover as wide a range of conditions as possible, the yields are shown for poor lands, medium lands and good lands.

AGE	BOARD FOOT CONTENTS		
Year	Poor Lands	Medium Lands	Good Lands
20	.....	900	3400
25	1500	4000	7500
30	4300	7700	12900
35	7800	12300	19500
40	11400	17700	26700
45	15000	22800	33800
50	18100	27600	39100
55	21000	30600	42500
60	23000	32200	44300

NOTE:—The State Board of Forestry maintains a forest nursery where trees suitable for forest planting are grown and distributed at cost to landowners of the State. Full particulars may be obtained upon application.